YENEPOYA UNIVERSITY

# EVALUATION OF LIP GROOVE PATTERNS AND ITS POSSIBLE USE IN GENDER DETERMINATION- A DESCRIPTIVE STUDY.


**By**

**Dr. TIM PETER**


**DISSERTATION**

**SUBMITTED TO THE**

**DEPARTMENT OF ORAL MEDICINE AND RADIOLOGY**

**YENEPOYA DENTAL COLLEGE**

**YENEPOYA UNIVERSITY**

(Recognized under section 3(A) of the UGC act 1956)

**MANGALORE**

In partial fulfilment of the requirements for the degree of



**MASTER OF DENTAL SURGERY**

**In**

## ORAL MEDICINE AND RADIOLOGY

**Under the guidance of**


**Dr. LAXMIKANTH CHATRA** B.Sc. MDS
**HOD and Guide**

**Dr. PRASHANTH SHENAI K** MDS
**Professor and Co-Guide**

Department Of Oral Medicine and Radiology

**Yenepoya Dental College**

**MANGALORE.**


**2011-2014**

# ABSTRACT

**Background:** Personal identification is becoming increasingly important not only in legal medicine but also in criminal investigation and identification. Cheiloscopy is a forensic investigation technique that deals with the identification based on lip groove patterns.

**Aims and objectives:** The aim of this study was to determine the common lip groove pattern in Mangalore population and to check whether sex determination can be made by analyzing lip groove pattern of an individual.

**Materials and methods:** Study was conducted in five hundred individuals with normal lip profile of age group (fifteen to sixty years), comprising of two hundred and fifty males and females each of Mangalore population, after obtaining their informed consent. Lip groove patterns among these subjects were recorded by photographic method by standardizing camera to subject distance and angle, lighting, shutter speed and lens configuration after stabilizing the subject. The lip groove pattern photograph thus obtained were analysed and the observations were subjected to appropriate statistical analysis.

**Results:** The results of the study revealed that lip groove patterns for each individual were unique and there was significant distinction between male and female subjects.

**Conclusion:** Since lip groove patterns are unique, it can be considered as a tool for personal identification in forensic odontology.



**Key Words:** Cheiloscopy, Personal identification.